

## WHAT IS CLAIMED IS:

1. A floating-impedance high voltage simultaneously test method, characterized in that using two or more sets of condition capable of simultaneously outputting different source signals to perform simultaneously the high voltage test and low voltage DC impedance test, in which conducting a DC impedance test via a floating DC impedance electric meter at the same time of conducting high voltage safety test via a high voltage generation means, that is conducting synchronized tests of safety and DC impedance on electric parts or products.
2. The test method as set forth in claim 1, wherein said floating DC impedance test apparatus has a floating voltage higher than the maximum voltage generated by said high voltage generation means and a floating current lower than the leakage current of the testing products or the current detection means may automatically subtracted the leakage current generated by the floating impedance test apparatus.
3. A floating-impedance high voltage simultaneously test circuit, for conducting simultaneously safety test on primary coil and case of a testing object, comprises:
  - a high voltage generation means for generation of a required test voltage for safety test for the testing object;
  - a current detection means for detecting current generated by said high voltage generation means by flowing through the testing object;
  - a floating impedance test means for measuring the floating

impedance of the primary coil or thermal filament of the testing object;

a isolation means for isolating said controller unit from said floating impedance test means to conduct a impedance test by said impedance test means under a floating mode;

a control unit for controlling the operation of above means; wherein by using a combined circuit constituted of above means, said high voltage generation means generates a high voltage required by a high voltage test to conduct a test on a testing object, and determines good/failure of a product with current value read by said current detection means; at the same time, a control signal is sent from said controller unit to said floating impedance test means via the isolation means for conducting a impedance test, while test data measured by said floating impedance test means is returned to said controller unit via said isolation means.